Pride Manufacturing Co.	**)**	**Departmental**
Piscataquis County	**)**	**Findings of Fact and Order**
Guilford, Maine	**)**	**Air Emission License**
A-852-71-A-N	**)**	**After-the-Fact**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Pride Manufacturing Co. (Pride Mfg.) of Guilford, Maine, has applied for an Air Emission License permitting the operation of emission sources associated with their woodworking facility.

B. Emission Equipment

Pride Mfg. is authorized to operate the following equipment:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate** (lb/hr)	Fuel Type, % Sulfur	Stack #
Boiler #5	8.9	1413	wood	1

**based on wood with a moisture content of 30%, Higher Heating Value/ = 6,300 Btu/hr

Process Equipment

Equipment	Max. Prod. Rate	Pollutant Emitted	Control Device	Stack #
Drawer Type Units (6)	0.266 gal coating/hr	PM, VOC	None	1 - 11
Spray Tumble Drums (11)	0.5 gal coating/hr	PM, VOC	Filter	12 - 15
Chain on Edge Unit	1.875 gal coating/hr	PM, VOC	None	16, 17
Spray Booth	1.0 gal coating/hr	PM, VOC	None	18 – 20
Drying Kiln	5500 MBF/year	VOC	None	N/A
Machine Shop Spray Booth		VOC	Filters	

C. Application Classification

Pride Mfg. is classified as an existing source that is applying for its first air emission license, after the fact. The Department has determined the facility is a

minor source and the application has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction:

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

Process Description

Pride Mfg. manufactures and finishes small wooden parts for models, toys, display items and crafts. Lumber is delivered to the facility and dried in kilns heated with steam. The dry lumber is then cut, turned, planed and sanded to produce items such as wheels, axles and trophy bodies. Paints and varnishes are applied by various processes depending on the size and shape of the finished piece. Green fuel received from the manufacturing plant in Burnham is burned in the wood-fired boiler. Dry wood scraps and sawdust are sold off-site.

B. Boiler #5

Boiler #5 was manufactured in 1946 with a maximum design capacity of 8.9 MMBtu/hr, firing green wood. It is not subject to EPA's New Source Performance Standards (NSPS) Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after July 9, 1989. Calculations for boiler #5 are computed based on wood with a moisture content of 30% (6,300 Btu/lb).

BACT for Boiler #5 is the following:

1. A PM lb/MMBtu emission limit regulated by MEDEP Chapter 103 and a PM_{10} lb/MMBtu emission limit based on the PM limit;
2. SO_2, NOx, CO and VOC emission limits based on AP-42 data dated 7/01 for wood fired boilers; and
3. Visible emissions from Boiler #5 (stack #1) shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a 3-hour period

C. Coating Process Equipment

Pride Mfg. operates three coating processes using a combination of solvent and water-borne coatings to finish their wood products.

1. Wood turnings are placed in sealed plastic bags with liquid paint and tumbled in wobble drums to coat the turnings with paint. The turnings are then removed from the plastic bags and placed in drawer-type dryer units to dry via forced hot air.
2. Wood turnings are placed in large drums in which HVLP spray guns spray the turnings while the drums turn. Hot air is used to dry the turnings in the large drums.
3. Some parts are coated using the Chain on Edge Unit, which traverses the parts through several spray booth stations and drying tunnels. The spray booths are controlled with filters, otherwise the exhaust exits directly through the Chain on Edge Unit's stacks.

Additionally, Pride Mfg. operates a paint spray booth in their machine shop. This unit is used to paint the production equipment manufactured by Pride Mfg. for their own use. Emissions from the paint spray booth are controlled with furnace type filters. The paint spray booth has the potential to emit more than 10 tons/year of VOC, but actual coating use in the spray booth is approximately 200 gallons/year. The spray booth is considered surface coating of miscellaneous metal parts as defined in MEDEP Chapter 129 "Surface Coating Facilities." Facilities may be exempted from the emission limitations of Chapter 129 if the following criteria are met:

- The maximum theoretical emissions from all surface coating operations are limited by permit or order of the Department to 1,666 lb or less in any calendar month;
- The owner or operator subject to the Chapter is and has at all times been in compliance with the maximum theoretical emission limitation since the issuance of the permit or order of the Department; and,
- The total actual emissions from the surface coating facility have not exceeded 1,666 lb in any calendar month since January 1990.

Pride Mfg. shall therefore not exceed 300 lb/month of VOC from the Machine Shop Paint Spray Booth, and shall submit documentation to the Department within one month of the signature date of this license to demonstrate that the facility has not exceed 1,666 lb emitted from the surface coating equipment in any calendar month since January 1990.

The coatings used at Pride Mfg. may emit Ethylbenzene, Toluene, Xylene, and Methanol. These hazardous air pollutants are not emitted in amounts greater than the DEP's facility threshold value of 1 ton per year. Pride Mfg. shall maintain

records to demonstrate that total HAPs from the Paint Spray Booth do not exceed 1 ton per year, on a 12 month rolling total basis.

The following control options were evaluated to determine BACT for the coating operations. The cost effectiveness of each control option was determined using EPA's Office of Air Quality Planning and Standards Control Cost Manual.

Control Technology	Capital Investment	Annual Cost	Cost Effectiveness ($/ton removed)
Regenerative Thermal Oxidation	$2,160,000	$469,000	$4,737
Catalytic Oxidizer	$1,748,000	$424,350	$4,331
Thermal Oxidizer	$1,440,000	$472,500	$4,773

Cost Effectiveness figures represent the cost per ton of VOC removed, based on potential licensed allowed emissions. As actual emissions from the coating operations are substantially less than the potential emission used in the BACT determination, the cost effectiveness per ton removed will be substantially greater for additional control technology beyond continuing to use a combination of solvent and water-borne coatings.

Pride Mfg. has proposed BACT for the three coating operations and the paint spray booth described above to be the following:

1. Continued use of a combination of solvent and water-borne coatings.
2. VOC emissions from the coating process limited to 28.0 TPY.
3. HAP emissions from the coating process limited to less than 1.0 TPY for each HAP and not to exceed 4.0 TPY for combined HAPs.
4. Continued use of HVLP guns to apply paint in the Spray Tumbling Drums.
5. Continued use of filters in the spray booths associated with the Chain on Edge Unit.
6. Continued use of filters in the machine shop spray booth.
7. Visible emissions from the stacks associated with coating (stacks #1 - #20 and the machine shop paint spray booth vents) not to exceed 5% opacity on a six minute block average basis.

D. Wood Drying Kiln

Pride Mfg. operates 7 wood drying kilns with a total maximum capacity of 11,000 MBF/year on a 12 month rolling total. VOC emissions from the kiln are calculated based on the Paper Industry NCASI study dated 7/96, for measurement of volatile organic compound emissions from lumber drying, using conservative softwood emission factors and assuming annual capacity in the kiln of 9,000 MBF/year.

E. Wood Handling System

Pride Mfg. operates a wood handling system consisting of cyclones that collect fugitive PM from turning and other processes, and convey it to the fuel storage shed for sale. Visible emissions from the cyclones, vents and fuel storage shed that make up the wood handling system shall not exceed an opacity of 20% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.

F. Parts Degreasers:

Pride Mfg. maintains several solvent degreasers. These degreasers are subject to the requirements of MEDEP Chapter 130. Initial Compliance Certifications as required by MEDEP Chapter 130 shall be submitted for each solvent degreaser within one month of the signature date of this license.

G. Annual Emission Restrictions:

The annual facility limits for Pride Mfg. were calculated based on continuous operation of Boiler #5, maximum capacity through the kiln, and maximum operation of the coating process for Pride Mfg. to remain a minor source. Pride Mfg. shall not exceed the following limits on a 12-month rolling total basis:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Boiler	Kiln	Coating	Tons/year
PM	11.7	--	--	11.7
PM_{10}	11.7	--	--	11.7
SO_2	1.0	--	--	1.0
NOx	8.6	--	--	8.6
CO	23.4	--	--	23.4
VOC	1.5	10.4	28.0	39.9

*HAP emissions shall not exceed 1.0 ton/year
for any single HAP or 4.0 tons/year total HAP.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for an after-the-fact renewal shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-852-71-A-N subject to the following conditions:

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege.

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(A) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

(i) within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

(ii) pursuant to any other requirement of this license to perform stack testing.

(B) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(C) submit a written report to the Department within thirty (30) days from date of test completion.

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(A) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances

representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(B) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(C) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Boiler #5

(A) Boiler #5 shall fire wood.

(B) Emissions from Boiler #5 shall not exceed the following:

Boiler #5 Emission Limits

	lb/MMBtu	lb/hr
PM	0.30	2.7
PM_{10}	--	2.7
SO_2	--	0.22
NOx	--	1.96
CO	--	5.34
VOC	--	0.34

(C) Visible emissions from Boiler #5 (stack #1) shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

(17) Coating Process Equipment

(A) Pride Mfg. shall continue to use a combination of solvent and water-borne coatings.

(B) VOC emissions from the coating process shall not exceed 28.0 TPY, based on a 12 month rolling total. HAP emissions from the coating process shall not exceed 1.0 TPY for each HAP and 4.0 TPY for combined total HAPs, based on a 12 month rolling total. Pride Mfg. shall keep monthly records of VOC emitted from the Spray Tumble Drums, Drawer Type Units, Chain on Edge unit, and Machine Shop Spray Booth, and shall calculate VOC emissions from these sources on a 12-month rolling total basis to ensure compliance. These records shall include purchase receipts and MSDS sheets that show the amount of VOC contained in each type of coating. Pride Mfg. shall also keep records of HAPs to demonstrate that less than 1.0 TPY of each HAP is emitted.

(C) Pride Mfg. shall continue to use HVLP guns in their Spray Tumble Drums.

(D) Pride Mfg. shall continue to use filters in the spray booths associated with the Chain on Edge Unit, and in the Machine Shop Spray Booth. Good maintenance practices shall be demonstrated through records documenting routine and other maintenance for the filters.

(E) Visible emissions from the stacks associated with coating processes (stacks #1 - #20 and the Machine Shop Spray Booth) shall not exceed 5% opacity on a six minute block average basis.

(F) Pride Mfg. shall submit documentation to the Department within one month of the signature date of this license to demonstrate that VOC emissions from the Machine Shop Paint Spray Booth have not exceeded 1,666 lb in any calendar month since January 1990. Correspondence in this matter should be directed to:

ATTN: Pride Manufacturing Compliance Inspector
Department of Environmental Protection
106 Hogan Road
Bangor ME 04401

(18) Wood Drying Kiln

Pride Mfg. shall not exceed 9,000 MBf/year, based on a 12-month rolling total, through the kiln. Compliance shall be demonstrated by kiln loading records showing the kiln throughput on a monthly and 12-month rolling basis.

(19) Wood Handling System

Visible emissions from the cyclones, vents and fuel storage shed that make up the wood handling system shall not exceed an opacity of 20% on a 6 minute block average basis, except for no more than 1 six minute block average in a 1 hour period.

(20) Parts Washers

Pride Mfg. shall submit initial compliance certifications for their parts degreasers as required by MEDEP Chapter 130, within one month of the signature date of this license. Correspondence in this matter should be directed to the address in Condition (17)(E). The parts degreasers shall meet the requirements of MEDEP Chapter 130, with the following operational standards:

(A) Close the covers on all solvent degreasing tanks when the tanks are not in use.
(B) Drain the cleaned parts for at least fifteen (15) seconds or until dripping stops.
(C) If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower-type spray) at a pressure that does not exceed ten (10) pounds per square inch gauge pressure (psig).
(D) Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope.
(E) Minimize drafts to less than 40 meters/minute.
(F) Refrain from operating the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired.
(G) Pride Mfg. shall not use any halogenated solvents in the degreasing tanks.

(21) Reporting

Annual Emission Statement

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department by September 1, the information necessary to accurately update the State's emission inventory by means of:

(i) A computer program and accompanying instructions supplied by the Department; or

(ii) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

(22) Pride Mfg. shall pay the annual air emission license fee within 30 days of April 30 of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

(23) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 16, 2002
Date of application acceptance: January 27, 2003

Date filed with the Board of Environmental Protection: _____
This Order prepared by Rachel E. Pilling, Bureau of Air Quality